

Reforming the Energy Vision

Demonstration Project Q3 2018 Report

Integrated Electric Vehicle Charging & Battery Storage System



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1.0 Executive Summary

Rochester Gas and Electric Corporation (RG&E or the Company) submits this quarterly report on the progress of the Integrated Electric Vehicle (EV) Charging and Battery Storage System Demonstration Project (Integrated EV & BSS Project). The Integrated EV & BSS Project will demonstrate how battery storage can improve the economics of EV adoption and minimize its impact to the electric grid. The Integrated EV & BSS Project will demonstrate how battery storage can be integrated with DC fast and level 2 EV chargers in order to manage cost impacts while optimizing the value of the battery system. The Integrated EV and BSS will be located at the RG&E Operations Center at 1300 Scottsville Road in Rochester, New York. The system will consist of two DC fast chargers, five level 2 chargers, and a 150KW and 600kWh stationary battery with a Battery Management System (“BMS”) to optimize all resources, including building demand.

The Integrated EV & BSS Project consists of two phases, including: (Phase 1) Integrated System Installation, and (Phase 2) Hypothesis Validation and Reporting. The entire project is anticipated to take approximately thirty-two months which includes site preparation, construction, and commissioning of the EV chargers and battery system as well as the validation and testing of the hypothesis, use case functionality and final analysis.

During and prior to Q3 2018, the project focus has been on finalizing construction and product delivery contracts, engineering and site preparation, and initial construction to support battery and EV charger installation.

Plans for Q4 2018 include:

- Completion of site construction
- Delivery and installation of the battery storage, Battery Management System (“BMS”) and EV chargers
- Testing and commissioning of all associated site equipment
- Development and finalization of use case execution and data collection

The following report provides a progress update on the tasks, milestones, checkpoints, and lessons learned to date.

2.0 Demonstration Highlights since the Previous Quarter

2.1 Activity Overview

Activity completed and results up to Q3, 2018 included:

- Vendor contracts have been finalized
- Engineering Drawings have been submitted
- Construction Permitting Application has been approved
- Interconnection Application has been submitted
- Civil Construction and mobilization has commenced
- Electrical Construction has commenced

2.1.1 Vendor Contracts

RGE has selected Mesa Technical Associates (Mesa) as the Engineering, Procurement, and Construction (EPC) contractor and integrator for this effort. Mesa has contracted with O'Connell Electric as the electric and civil contractor.

2.1.2 Engineering Drawings

The Engineering drawings required for the Civil and Electrical construction have been submitted, reviewed, and approved.

2.1.3 Construction Permitting Application

The building permit was authorized and approved for construction on July 26, 2018 by the town of Chill, NY.

2.1.4 Interconnection Application

The preliminary study was completed on August 13, 2018 and it was determined that the CESIR study would not be necessary. Mesa is required to complete a system verification test during the system commissioning and provide evidence to RGE of the successful result.

2.1.5 Civil Construction and Mobilization

Civil construction began on September 24, 2018. Civil construction is expected to complete on November 2, 2018.

2.1.6 Electrical Construction

Electrical construction began shortly after civil construction began. This activity is scheduled to complete on December 1, 2018

2.2 Metrics and Checkpoints

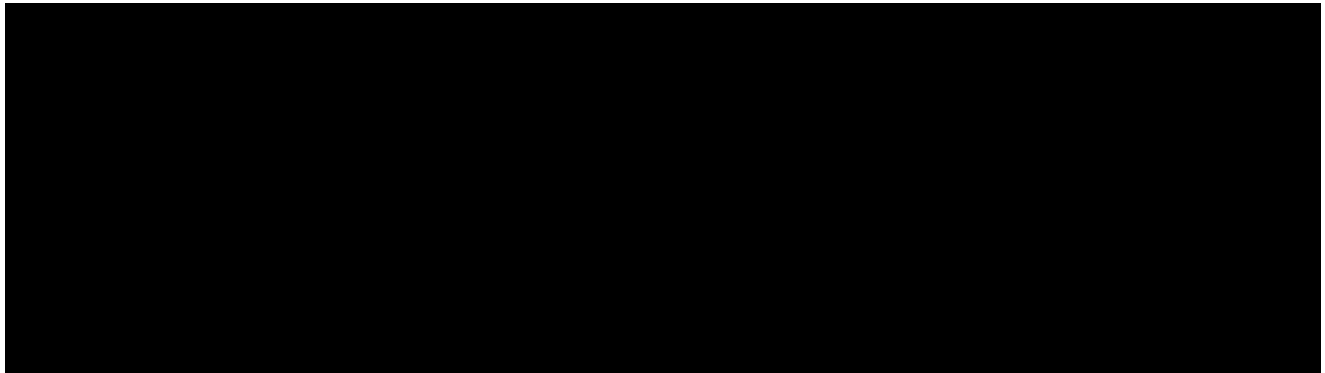
The demonstration project is currently in the “Phase I – Execute” portion of the project as defined in the Implementation Plan, therefore, no metrics or checkpoints are being captured at this time. Metrics and Checkpoints will be captured as part of the Phase II – Execute portion of the project.

2.3 Issues

NA

3.0 Work Plan

3.1 Budget Review



3.2 Updated Work Plan

Milestone	Description	Date
Phase 1 - Initiate	Vendors Selected and Kick Off Meeting	May 2018
Phase 1 - Plan	Engineering and Procuring Equipment	June 2018
Phase 1 - Execute	Construction and Testing	August - December 2018
Phase 1 - Closeout	Commissioning and Turnover	December 2018
Phase 2 - Initiate	Review Metrics and Information Gathering	September 2018
Phase 2 - Plan	Develop Test Plan and Determine Roles & Responsibility	October - December 2018
Phase 2 - Execute	Hypothesis Validation and Data Collection	January 2019 – December 2020
Phase 2 -Closeout	Results and Report Creation, Scalability Analysis, Demonstration Project Completion	October 2020 - December 2020

The work plan shown above as developed as part of the Implementation Plan has no changes as the project is currently on track to meet all milestones. Milestones Phase 1 – Initiate and Phase 1 – Plan are both complete.

3.3 Next Quarter Planned Activities

In Q4, 2018 the project team aims to complete the following tasks:

- Completion of Phase 1 Activity Including
 - Complete Civil and Site Construction
 - Electrical Construction
 - Batter Energy Storage System Factory Acceptance Testing
 - Delivery and Installation of the EVCS and BESS
 - Testing, Commissioning, and Substantial Completion of the BESS and EVCS
- Initiation of Phase 2 Activity Including
 - Review Metrics and Information Gathering
 - Develop Test plan and Determine Roles & Responsibilities

4.0 Conclusion / Lessons Learned

There are currently no lessons learned or conclusions experienced for this reporting timeframe.